



Joint Clinical Research Centre (JCRC)

JCRC GETS CAP ACCREDITATION

The Joint Clinical Research Center (JCRC) has been awarded the College of American Pathologists (CAP) accreditation in recognition of the quality of the laboratories.

"It is not only an honour for the center but Uganda as a country because we have a lab that meets international standards," Prof. Peter Mugenyi, the Executive Director of JCRC says.

This accreditation makes the center one of the first laboratories to be certified to conduct the biggest range of tests (over 50 tests) in Uganda.

What does the CAP accreditation entail?

In order for a laboratory to receive the CAP accreditation, an institute has to submit an application to CAP in Chicago, United States of America.

Upon receipt of the application, CAP will first conduct an assessment to ensure that the laboratory adheres to various international standards that range from safety and buildings to the competence of staff. These are compared to the best labs in the USA, Europe and some countries in Africa affiliated to the College of pathologists.

"They will not undertake the journey to come to your laboratory unless you give them an indication that your laboratory meets basic requirements. The standards must be equal to the other highly established scientific structures," Mugenyi notes.

The CAP ascertains that an institution meets the basic requirements by initially sending questions to the institution on the laboratory performance. The questions seek to know what kind of quality check lists the laboratory conducts and whether they are being carried out independently by recognized organisations.

When CAP reviews the institution and finds satisfactory results then they communicate a date for inspection of the laboratory and this is done at a fee which caters for travel expenses for the three man team.

On a set date they carry out a thorough inspection of the institute and standard requirements such as; the safety of the organization, the buildings, adequate space for tests to be carried out and whether every reagent used in the lab is stored in its recommended condition.

"Some are stored under room temperature while others are kept at -20 degrees, some at -80 degrees and even at liquid nitrogen temperatures which is extremely cold," Mugenyi explains.

It is not only enough to have these facilities, they must be maintained daily and this is evidenced by the laboratory's records of maintenance.

The inspection team also looks at the tests conducted in the institute; for example if you do malaria tests they want to see that you have standard operating procedure to carry out the tests.

"Apart from having the proper procedure, it must also be written, reviewed and signed at all levels of competence. It must also be up to date and arrive at correct results when the expert conducts the test," Mugenyi says.

According to James Nkalabo, the deputy director for laboratory services at JCRC, the laboratory is accredited to carry out over 50 tests making it the largest test menu in the country.

The inspection also considers qualification of staff; they must first fulfill the Ugandan standards and be registered by the Allied Health professional council.

"The standards of the laboratory staff are compared with others and should hold at least a bachelor's degree. In addition each level of supervision is inspected and an example is that the executive director should have the minimum of a PhD," Mugenyi says.

Dr. Kityo Cissy Mutuluza the deputy executive director of JCRC adds that staff members also have to undergo competence tests to ensure there is consistency in the laboratory tests they do.

"We usually have online assessment courses which are done by an organization from the United Kingdom (UKNEQAS). They send us blinded samples three times a year and compare us to 7,000 other labs. Every test we do is externally certified," Nkalabo says.

Each laboratory scientist must be certified in the tests that he/she carries out which is usually done after peer review.

What does this mean for Uganda?

As its name suggests (a centre of excellence), the Joint Clinical Research Center specialises in



JCRC sample repository

medical research through partnerships with local and international institutions. The center raises its own funds through competitions to acquire their research however in order to be competitive JCRC must offer the best tests to researchers.

"Before any international grant for research is awarded the first thing the awarding institute does is to establish that you meet the international standards of quality," Mugenyi says.

Therefore with the CAP certification which is one of the highest accreditations a laboratory can achieve, JCRC will have a competitive edge and will compete favourably with international organisations.

"People know who you are and they are sure of what you are able to achieve and the reliability of your results so how they can trust you with grants of expensive research projects," Mugenyi explains.

In addition to the grants, Uganda will be able to conduct research that will lead to various milestones in the country's health sector.

"On average a research project for a new drug takes nine years and in terms of investments it can cost hundreds of millions of dollars. At any stage in such an investment people want to be sure that where the research is taking place and now Uganda offers that assurance," Mugenyi says.

Sustainability

Dr. Kityo notes that JCRC is already an International Center of excellence accredited by the World Health Organisation (WHO) and the United States National Institutes of Health. The CAP accreditation is currently the institution's peak achievement and it has elevated its profile however attaining this level of certification is not the ultimate objective but maintaining it.

"CAP does not give a blanket accreditation because every two years they return to check whether the lab has maintained the quality they found during their previous inspection. It is therefore going to be real hard work by the staff to maintain the standards and they are aware of the task that lies ahead," Mugenyi states.

Besides maintaining standards, CAP will also seek to establish that the laboratory has

developed or adopted new techniques because science as a discipline is constantly evolving.

What is JCRC?

JCRC was started in 1991 in Mengo and was the first PEPFAR grantee was the first center providing institutional treatment for HIV in Africa when it started over 100,000 pioneer patients on ARVs.

Since then JCRC has participated in most of the research that informed the way AIDS is treated today.

"We have done research on the best combination for patients beginning treatment and also for those failing on their first line of treatment," Kityo says.

The center also pioneered the HIV vaccine in Uganda and Southern Africa and has continued with other research studies on HIV treatment and the Vaccine.

"The center is also one of the international sites involved in research to find the best protocol for drug resistant HIV. This research will inform the way drug resistant HIV is diagnosed and treated," Mugenyi says.

Dr. Kityo adds that with support from the European Union the center developed formulations for children with HIV that are being used not only in Uganda but are part of the WHO pediatric recommendations.

JCRC also among the seven centers selected by Gilead a prominent pharmaceutical company for its studies.

"We are also part of the HIV cure research agenda so besides treating HIV we are putting emphasis on curing HIV in the developing world," Kityo says.

In addition to research on HIV, JCRC is also doing research on cardiac diseases such as hypertension in children and rheumatic heart disease. Others are malaria, dentistry and zoonotic diseases which constitute part of the emerging diseases like bird flu.

Today JCRC has regional centers across the country in Gulu, Fortportal, Mbale, Mbarara and Jinja (Kakira).



Hematology Section